

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Lau, Zack, KH6CP" <z1au@arrl.org>
Subject: [8354] 2 way QRP DXCC?
Message-ID: <3190A2D2@arrl.org>

Has anyone applied for this--or really close? The QRP ARCI does allow endorsements, but I haven't seen a recent listing of awardees.

I've been wondering whether someone will get this before the first 70 cm DXCC.

Zack KH6CP/1

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: KFGlynn@aol.com
Subject: [8362] 2-Way QRP with UT5UIA
Message-ID: <960508110009_289703814@emout12.mail.aol.com>

Hi gang,

Last night I worked UT5UIA in Kiev on 7010.50 at 40 watts. I was 589 to him and he 579, very loud. So I asked him if OK to QRP. I went down to 5 watts with 559 rpt. Then went down to 1 watt with 449 QSB. He went to 5 watts and was also 449 QSB. We chatted for at least another 5 minutes QRP to QRP or so until a C02 station called CQ on top of us.

I love this stuff!

73 Kevin KB2TE0

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: cjl@mail09.mitre.org (Charles J. Ludinsky)
Subject: [8350] 40-9er - Mute Circuit Problem
Message-ID: <960508084650.7671@mail09.0>

Here's a problem that I haven't had time to troubleshoot yet, but was hoping someone might have some ideas about. The mute circuit intermittently (but frequently) hangs up like a sticking relay. On key release, the audio may not return for several to many seconds. Briefly hitting the key usually returns the audio with a loud pop. Even when it does not stick, the audio return time is usually excessive, with loud pops and clicks that are not timed with keying. Since the circuit is quite simple, it should be easy to find the problem by component replacement, but I was hoping someone might have some ideas about

this unusual behavior.

Note that I added the positive feedback modification to the LM380N. Any possibility that this is intermittently oscillating (outside of audible frequencies) or locking up? Note also that the 82mH choke was bad (open) when I received it, and I replaced it (temporarily, until a replacement can be found) with a resistor of about 400 ohms (about equal to the reactance of the 82mH inductor at 800Hz). Could this play any part in the problem?

73 de N1RXT,
Chuck.
cjl@mitre.org

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Raymond Gretlein" <raymond_gretlein@mi.sparta.com>
Subject: [8384] A Separate List for TMPS.
Message-ID: <n1380561918.38236@sulu.mi.sparta.com>

Well what the heck. I'll through in my two cents. I like the variety on this list and the generally cordial commentary. I'd like to continue with a single source (QRP-L) for QRP aspects...including propagation studies, rig reviews, comments, etc.

I filter the old fashion way, collect traffic in the digest version (prevents the mail arrival signal from sounding all the time), and read the topic line...if it doesn't attract me I skip it.

73,
Ray

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: A1K0FRP@aol.com
Subject: [8342] AOL complaint dept
Message-ID: <960508000738_393329499@emout19.mail.aol.com>

Does anyone know the email adr for AOL complaints. Just about had it accessing the Web on aol. Going to an internet service. Can't get thru on the phone.

A1 K0FRP

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Moore, Randy (William R)" <WRMoore@ingr.com>
Subject: [8358] Archive searching
Message-ID: <c=US%a=_%p=INTERGRAPH%l=HQ9960508085543XM006F00@hq15.pcmail.ingr.com>

Is there a way to search all the QRP-L archives at LeHigh without going through each day's archive, one at a time?

Tnx es 72/73

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: CQC@aol.com
Subject: [8370] Attn: PA3ASC
Message-ID: <960508122917_530834033@emout16.mail.aol.com>

Mike:

I lost your e-mail and postal address. Please drop me a line with both.

Tnx,
Rich W0HEP

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Glenn E. Scott" <SCOTTY@facade.adm.clarkson.edu>
Subject: [8363] AUDIO IC INFO
Message-ID: <18A3FD39CE@FACADE.ADM.CLARKSON.EDU>

Hi guys, wondering if someone out there could help me. This doesn't really have to do with QRP but I have exhausted all other means. I am looking for a 14 pin IC that is labeled "TAA 621A12. I beleave it is an audio amp but can't find a replacement or pin out diagram. I have called the company that made the equipment that this chip is in, and they tell me that they no longer carry any parts for this model. That's it, they say no more. I have checked all my resources that I have available and can not find any info on this IC. I know the one that I have is no good so the plan is to but a new one. Can anyone out there give me some idea's where I might purchase this chip or data sheet on it ?

" 73 " N2ULU (GLENN SCOTT)

QRP-L #403, NE QRP #448, NCARC

Scotty@facade.clarkson.edu

Clarkson University

8 Clarkson Ave
Potsdam, NY 13699

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: penc@elan.mrwo.mcgill.ca
Subject: [8353] Dayton Wx
Message-ID: <9605081337.AA06682@elan.mrwo.mcgill.ca>

Hi Gang:

You can get weather information for any city including Dayton (DAY) by doing a telnet rainmaker.wunderground.com. It provides short and long term forecasts and current conditions. Better yet, if you have web access and a good web browser just lookup the weather channel home page. (Of course you could simply turn on your TV and if you have cable get a good idea from the national maps!)

For those interested the Dayton weather is as follows (or should be according to the forecast):

Today: Awful. There is a flash flood watch! Showers and thunderstorms with temps near 80, lows near 60.

Friday: Chance of thunderstorms. High 75-80, Lows around 60.

Saturday: Continued chance of thundershowers. Lows 50-55, Highs 70-75.

Sunday: Fair, Highs 70-75, Lows 50-55.

Disclaimer: This is the National Weather Service Forecast. It is NOT my forecast. Take any forecast past two days with a grain of salt.

BTW, the weather underground is menu driven. It is easy to use. As long as you can telnet to rainmaker.wunderground.com, you will have no problem accessing the info you want.

Richard Penc WK2A
Postdoctoral Fellow
Department of Atmospheric and Oceanic Sciences
McGill University
penc@radar.mcgill.ca

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Nick Franco <kf2ph@bnl.gov>
Subject: [8359] DX Help? TMPS

Message-ID: <3190B036.4C4@bnl.gov>

Hi All,

Last night 30m was hoppin' and on the way home from my softball game I work VP4WWT (I think). He was moving along and picked me up no problem. I'm not 100% sure of the call. He asked me to QSL because I was mobile QRP. Did any of you hear him and can confirm or correct my copy of his call? His name is Roma.

Nick

--

Nicholas J. Franco <>< BROOKHAVEN NATIONAL LABORATORY
Sr. Systems Specialist RHIC Project - Building 1005 - Room 201
Tel: (516) 344-5467 Fax: (516) 344-3674 UPTON, N.Y. 11973-5000
Email: kf2ph@bnl.gov <http://www.rhichome.bnl.gov/People/franco>

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: vhatley@usa.pipeline.com (Vernon A. Hatley)
Subject: [8365] DX reflector
Message-ID: <199605081522.PAA25132@pipe18.h1.usa.pipeline.com>

Does anyone here know the address of the Internet DX reflector? Please post it if you do. Tnx.

73/72

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KK5RO Butternut Vertical
Vernon A. Hatley OHR Explorer II 40M
QRP-L #325 Ten-Tec Omni V
Kent Paddles

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: robert bell <rbell@uniserve.com>
Subject: [8352] For Sale
Message-ID: <96May8.062927pdt.30813-151+439@haven.uniserve.com>

Hi I have the following items for sale :

Ten Tec PowerMite PM3a in excellent working condition \$100 us or trade for qrp gear

AEA PK232 multimode data controller in good working condition recently upgraded to latest pactor eproms \$200 us

72 Rob VE7IGZ (604) 853-5870

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: CQC@aol.com
Subject: [8382] Found PA3ASC info
Message-ID: <960508155819_109413753@emout08.mail.aol.com>

I found the info I needed on PA3ASC. Thanks...

Rich WOHEP

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: Dan Reynolds <bcdlr@midwest.net>
Subject: [8371] FS: HP 410B VTVM
Message-ID: <199605081618.LAA02659@cdale1.midwest.net>

Anybody interested in that HP 410B VTVM I asked about a while back? It does not have the diode in the AC probe. Well it does, but it is broken. If you might be interested email me. A guy has a used 440 HT I want to buy, so something has to go!

Peace+

Dan Reynolds, bcdlr@midwest.net, KB9JLO

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: [8389] HamCalc version 19 available
Message-ID: <96May8.170610-0400edt.65656-14099+31@hooch.CC.Lehigh.EDU>

Gang,

HamCalc version 19 (01 May 96) is available at:

<ftp://ftp.lehigh.edu/pub/listserv/qrp-l/tools/hcal-19.txt>
<ftp://ftp.lehigh.edu/pub/listserv/qrp-l/tools/hcal-19.zip>

New programs:

- Folded Dipole - 300 ohm Twin-Lead
- RC Active Audio Filters
- Resistor Colour Codes
- Transmitter Transistor Stage Coupling
- Zepp (double extended) Antenna

Upgrades:

- Coaxial Cable Characteristics

Many thanks to Murph, VE3ERP.

73

Jim N3VXI

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: ae4ic@nr.infi.net (BOB KELLOGG)
Subject: [8357] Help-Antenna tuner tests
Message-ID: <199605081350.JAA22582@mh004.infi.net>

Hi Gang,

How about some experienced help?

I have an MFJ-259 SWR analyzer, and other common test equipment. I'd like to run some tests on my St. Louis Tuner and another tuner I'm building. Can someone suggest the best tests to perform and how to hook up the equipment to do it?

CUL,

Bob Kellogg, AE4IC

Prolably, but not nececelery. - Benny Hill

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: k3as@dol.net (Bill Marsh)
Subject: [8374] HW-* Help
Message-ID: <v01540b00adb6804e3fca@[204.183.91.39]>

Hello to all from a new man on the list!

Recently got back on the air after eight year total QRT. Lost the thread of whats happening in QRP, but this list with it's variety of input is

quickly getting me up to speed.

Stored away in my closet is a "stock" HW-8 that I would like to modify for increased power, be great if I could get 5W out. Attic antenna and sun spots! Can I accomplish this by replacing the final transistor and retuning? If so what transistor should I use and can you tell me a supplier that sells them?

Also would like to install RIT, can anyone recommend a simple but effective circuit, and who supplies varicaps?

Need and appreciate all the help I can get. Thanks es 73.

Bill, K3AS

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Glenn E. Scott" <SCOTTY@facade.adm.clarkson.edu>
Subject: [8378] IC info help
Message-ID: <1C4FBF7391@FACADE.ADM.CLARKSON.EDU>

Just wanted to thank everyone for the input that I received on the TAA612 audio amplifier. The leads were very helpful. I wish I could thank each of you individually but that is almost impossible considering the numerous postings that I received. It is incredible, the amount of expertise and knowledge that this group has. Has anyone ever figured how many years of knowledge that this group has as a whole ? I'll bet it would scare you.

Thanks again, everybody.
" 73 " N2ULU (GLENN SCOTT)
QRP-L #403, NE QRP #448, NCARC
Scotty@facade.clarkson.edu
Clarkson University
8 Clarkson Ave
Potsdam, NY 13699

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: john andrews <n5inz@eee.org>
Subject: [8345] Internet Service Providers.....
Message-ID: <31902C2E.1FD9@eee.org>

Hi Gang:

I'm baaaack!

Have seen several postings by members of the group who are unhappy with their service providers. I left a *large* service because:

1. E-mail to the provider was sent back with the statement that they were "doing the best they could" and my problem would be looked into in 3-4 weeks.
2. My provider had a long distance # for service problems and a wait of up to one hour.

There are, I'm sure, some great commercial service providers. Many of you can give testimonials about service.

The provider I found(via word of mouth) is a joint operation and non-profit. Several large companies and the county government run mine.

You might ask at the county library, county seat, or other government office if you have such a system.

As of this date, I'm very satisfied with my service. The techs spent a great deal of time working on a "software glitch" that nearly drove me crazy. I'm a happy camper.

72, John-N5INZ

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: wa5whn@ix.netcom.com (Jay Miller)
Subject: [8379] May 11/12 looking for Alternate Field Day site.
Message-ID: <199605081845.LAA24086@dfw-ix3.ix.netcom.com>

Dear Fellow QRP Enthusists,

WB5LYJ & I will be hiking into the Northern New Mexico Rockies, scouting for an alternate Field Day site, just in case there will be no longer any Forests left (3% humidity, low 90's & dry) in NM. I will be taking a wire beam & G5RV with me, and the trusty Sierra (15/20/30/40 meters band modules). If You just happen to hear either WB5LYJ/qrp or WA5WHN/qrp, most likely on 30 meters, do stop by & say "Hello" on HF. Now we will have smoke & wind.

Great monthly (May) meeting report, in the NorCal QRP Club's Web Page.

<http://www.fix.net/norcal.html>

Excellent kudos to the Webmeister, Jerry Parker.

In the May NorCal QRP Club meeting report ref: QRPTTF;

"Riley, NM as a resort ?" That's like equating Russell, Colorado to Vail, Colorado. Yeah, right, it's a resort, if You are from West Texas, oops, sorry Chuck. ;-)

Anyone notice that we had 2 C-Class (Solar) eruptions/Flares today ? Let's check 6/10/15 meters periodically.

72...(cough-cough, from Smokey NM)...Jay

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: torell@sicom.com (Kent Torell)
Subject: [8385] mid-week propagation
Message-ID: <v02130502adb6aaeca457@[192.91.202.41]>

Gang,

The sun is picking up in activity a little bit, so the MUF is rising a little. Yesterday, measured in Texas, it stayed over 10 Mhz the whole nite! (3000 Km path) 40 meters should be doing pretty well also, I would think. Some sporadic E was noted at 1900Z (no predicting that one). Today's forecast:

HF propagation conditions were normal over all regions. MUFs may begin picking up slightly over the next several days with the minor elevation in solar flux levels observed over the last several days. There remains a chance for SWFs on daylight paths due to possible minor solar flaring from Region 7962.

A SWF (short wave fadeout) is a short-lived massive attenuation of signals.

Kent Torell torell@sicom.com 602-483-2867 x40
SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260
AB70A TMPS 1996 Qs=004 States=03 Confirmed=00 DX=00
AZ KS OK

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Bob Hightower <ki7mn@dancris.com>
Subject: [8387] NorCal 40A help
Message-ID: <199605082023.NAA09891@dancris.com>

After a few days of lying on the shelf, the NorCal 40a started working all by itself! Good audio, and power out. I answered a W6 call, and it went dead

again. AA7QY reported that he had a problem similar to that with a board flexing. Has anyone else had this? I note that there is one point in the instructions where a solder pad is very close to the front panel, and you must insulate it. Maybe that wore through?

I'd appreciate any insight, while I gently flex the board to see what happens.
73,

Bob KI7MN NorCal 1221 ARCI 8918 Qrp-1 271 ARRL (Not in any order of importance!)

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Jerry Parker <jparker@fix.net>
Subject: [8346] NorCal Page
Message-ID: <199605080643.XAA10477@fletch.fix.net>

NEW on the NorCal Page <http://www.fix.net/norcal.html>

- * May NorCal Meeting Summary
- * Updated St. Louuis Tuner Info/Mods
- * NorCal 49er Info Link
- * QRP Website Links

72,,,Jerry...WA6OWR...K

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Art Searle <asearle@netusa.net>
Subject: [8355] Oooops! Duplicate Msgs.
Message-ID: <3190CE75.19CB@netusa.net>

Subject: Oooops! Duplicate Msgs.

I use 2 and have 3 servers available to me:

asearle@netusa.net
art.searle@asb.com
arts@titan.netusa.net

One locked up and crashed while posting mail. I got no conformation even after I finally did get back in.

Very sorry about that, 72, de ART WU2K

P.S. 3b8CF very strong, Jacky is a vry gud op and easy on 30m last night.
Anybody work ZL8RI Kermadec on 30m this morning?

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: STEVE STUNTZ <STUNTZ@wapa.gov>
Subject: [8367] QRP Field Day Program
Message-ID: <s1906b35.050@wapa.GOV>

I am offering my Field Day program for PC computers to QRPers for cost, \$5. The program has been used for 4 years by the Loveland Radio Club and for 1 year by the Colorado QRP club. It logs all bands and modes; sends and receives CW; and makes sorted call, log, and spreadsheet files. The documentation describes a simple interface circuit (identifying Radio Shack part numbers) that will key any QRP transciever and will also copy cw from the headphone jack. More info is available from me at stuntz@wapa.gov. Send money to Electrosoft, PO Box 1462, Loveland, CO, 80539.

DE N0BF, Stephen Stuntz

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: Larry East <LVE1@inel.gov>
Subject: [8364] QRP+ "Anit-thump" Mod
Message-ID: <2.2.16.19960508151127.56974de4@134.20.32.17>

The description of this mode is now available from the QRP-L FTP site in the "mods" subdirectory. The file name is index_audio_mods.txt.

It should also be available soon from the QRP-L WWW resource page -- <http://qrp.cc.nd.edu/qrp-l> -- probably in /hints/index.html but I'm not sure. I will also post some other articles on mods for the Ten-Tec 509, OHW WM-1, etc. there in the next couple of weeks (gotta get stuff done for the July QRP Quarterly first!).

72, Larry W1HUE/7

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: mizrahi@svlhp8.scs.philips.com
Subject: [8383] Simple Power Mods for the 40-9er
Message-ID: <9605081957.AA07660@svln20.scs.philips.com>

A few bits and pieces were posted regarding the output power of the 40-9er but nothing definitive.

>From all measurements on output filters done by Alan Kaul, the main issue we can see is the lack of drive to the final, so any mod in this direction will help increase power AND EFFICIENCY. Many options are available to achieve these goals, but we'll concentrate on the simple ones that anyone with either kit can make. No traces to cut here.

These mods were collected from many an e-mail and represent lots of hard work, on paper and with the soldering iron, of many hams on this server, to which great acknowledgements are due. For all of you out there who have already walked this trail and are hiding "in the weeds" with some good mods - please post them here. We can learn a lot from all that accumulated experience!

NE602 VOLTAGE

>From the little I've seen, the 5V regulator for the NE602 is not sufficient. The drive power "borrowed" from the oscillator circuit goes up rapidly with the NE602 voltage.

First step is almost mandatory. Replace your regulator with a 78L06 for a safe battery operation. If you plan on a 12V only operation then a 78L08 is even better.

The NE602 works well above its ratings, but I've seen enough distortion at 12V to convince me not to drive it that hard. You'll get more harmonics and, even worse, more "garbage" in the receiver.

OSCILATOR OFFSET CIRCUIT

Although not giving a fixed offset, some have used a parallel capacitor with a resistor/diode switch.

The problem with this circuit is that it lowers the Q of the oscillator circuit at key down, which reduces the drive level on transmit.

An alternate scheme which switches the diode on during receive is preferred.

DRIVER CIRCUIT

Larry East has recommended to replace C11 and C19 with a 0.1 cap for better bypassing. Some claim to have seen a significant increase of the drive level and the output power. Even if it won't increase power, this mod is easy to do and can't hurt. Bob Kellogg has reduced R4 to 100 ohm to increase the drive level. Haven't tried this one but it sounds worthwhile trying.

FINAL CIRCUIT

Larry East has reported power gains with the replacement of RFC4 with 22uH instead of the original 15uH.

OUTPUT FILTER

Alan Kaul has run some extensive testing on a few filters. Considering only parts replacement, the following two filters are good "swaps" for the 3-element pi, giving more power and cleaner output:

- (1) 470pF-1.5uH-470pF
low Q, "safe" to build with 10% parts, low harmonics attenuation but better than the original filter.
It is also superior to the 470-1.2-470!
- (2) 1300pF-0.68uH-1300pF
relatively high Q, so it's allegedly more sensitive to component values. Simulations have shown that it's quite tolerant - 5% parts are VERY safe, possibly even 10%.
Meets FCC rules for harmonics! By this I mean, if you drive the final reasonably well (-10dB F2 at the collector is OK) and use 5% components for the filter.
Thumbs up to Mike Czuhajewski for this one.

TOROIDS

Considering that molded inductors have high resistance, as indicated by their specified (and measured) component Q, a considerable amount of power is dissipated in them.

>From the ones in the 40-9er, consider replacing RFC4 and RFC5 with toroids, or at least swapping them with the BIGGER molded inductors - thicker wire, less resistance.

This is especially important for the high Q filters, although the ones above were simulated to yield more power than the original pi network with Q=30 for the inductor (thin molded).

CONCLUSIONS

Most of the mods above can be completed in no time after one visit to the parts store.

The main question left unanswered is how much power can one expect with these simple mods?

Lab work is still on-going but from the numbers we've seen so far it seems that the one watt level is at danger with a 12V supply.

If you like "miliwattting" - no need to go any further!
For me, that's probably where the 40-9er fits real well...

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: Allen Jones <ajones@adsnet.com>
Subject: [8376] SLT Dummy Load
Message-ID: <199605081734.MAA08829@alice.adsnet.com>

Has anyone else tried using the dummy load built in to the St. Louis Tuner on the higher HF bands? The DC resistance is very close to 50 ohms but the VSWR on 10M > 2:1. I have my forward meter set for 5W full scale and the reverse for 1W FS. I get a full scale reverse deflection on 10. My guess is that the long runs of #18 wire between the switch and other parts of the tuner adds a fair amount of inductive reactance

72/3 de Allen, K9DZE

=====
Allen Jones K9DZE ajones@adsnet.com
Michigan City, Indiana EN61nq
ARCI G-QRP NorCal QRP-L #112
=====

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Ted Kell" <tkell@130.253.192.68>
Subject: [8361] SLT hint
Message-ID: <9605081455.AA02782@nyx.net>

When putting the two variable caps on the front panel, getting the nylon washers in place could be a problem. I borrowed my daughters glue roller that she uses for school projects, touched each washer to the roller to get a _small_ ammount of glue on and then place the washer on the panel. Worked like a charm.

Putting the multi-tap inductor in its switch was a pain.

72

Ted KC5CUW

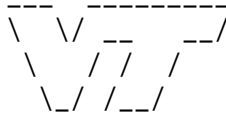
From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996

From: pelt@vt.edu (Randy Pelt)
Subject: [8388] SLT Tidbit
Message-ID: <v01540b01adb6bd5353af@[198.82.152.40]>

Using all the published errata, I was able to get the SLT together pretty fast. The biggest problem I had was with the plastic snaps used to join the top and bottom covers. I never did figure those muthers out!. I finally gave up and cut a piece of pc board and used sheet metal screws to join the two covers.

My thanks to Jim, WK8G who suggested the idea of printing panel labels from your PC to "sticky backs". Wish I had thought of that years ago! Sure would have made a lot of my projects look "professional."

Ranson J. Pelt
pelt@vt.edu
QST de nz4i Semper Fi



From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: af852@rgfn.epcc.edu (William R Colbert)
Subject: [8392] Solar Condx
Message-ID: <9605082327.AA06091@rgfn.epcc.Edu>

Looks like conditions are on the way up - from a low solar flux of 67 last week (May 1) with no spots to 78 expected for the next couple of days with at least 9 spots showing and some sub-surface C-class flares active. Won't be long before 15 and higher will be open on a regular basis. Good DX 72 73 Ray

--

Ray Colbert, W5XE/V31XE, El Paso, Tx

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996

From: km@PACT.ORG.PE (Kris Merschrod)
Subject: [8349] TMP from Lima, Peru
Message-ID: <m0uH78R-000T5MC@rcp.net.pe>

8 MAY 01:48 to 02:28 NO W-land Propagation BUT

10.102 MHz to 10.105 MHz

RW9WA 559
RA4HW 569
OH3LYG 449
TI4VSG 449
RA4SL he was weak and after responding to my CQ was lost
UA3AFS 559

All were given 559 or 549 by me
Rig - Explorer II abt 3 Watts
ANT - Butternut Vertical (At 160 feet on top of Building)
ABT 100 foot run of 9913 coax from Apt.

PS I was calling CQ for the most part and had a small pile up for one round to RA-Land. (Used CMOS II memory keyer through a mouse, plus the J-38 to break the boredom!)

73,
Kris
OA4DBO

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Jerry L. Bartachek" <jbartac@max.state.ia.us>
Subject: [8351] TMPS - Morning Operation
Message-ID: <3190BC13.1448@max.state.ia.us>

I've been seeing a lot of postings about the 30 meter test period, and improving band conditions lately. I have been using this wonderful band off and on ever since it was first opened for Ham use. In fact I have the first thousand-mile-per-watt award issued by QRP ARCI for a 30 meter qso!

I am able to operate only in the mornings and a few random times during weekends, and would love to contact more QRPers during the test, so PLEASE look for me from about 1130 UTC to nearly 1300 UTC every day.

I find 30 m open pretty early in the morning exhibiting very long skip distances. Often I can only work New England, Southern Florida, Arizona, or California, but as the sun rises, the entire east coast comes in

pretty well.

I had great fun working Rick, KF2PH/mobile/QRP two consecutive days last week in the mornings before work. I had been hearing him and calling him for a few days, and then we had our first chat. I was tracking him, and through perservierence I GOT him!

See you on 30 m before you leave for work in the AM?

72,
Jerry KD0CA

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: cjsterl@ix.netcom.com (Craig J. Sterling)
Subject: [8377] Tmps Update from Washington, D.C.
Message-ID: <199605081810.LAA01563@dfw-ix8.ix.netcom.com>

Gang et al,

Well, here it is May 8th. Been spending lots of time listening and operating on 30 meters ... what fun! For me, unlike 80, 40 & 20, everything I hear I can't work. I'm beginning to get a sense of the amount of signal strength the TX station needs for me to call and be heard.

Still working off the Windom. Tried out a 30M J-Pole as per the instructions of KR4IT (Mike), but found it to be 2-3 S units below the windom. It was a very tough antenna to bring to resonance and possibly its location probably contributed to its demise. I live in an urban environment & have limited space in which to hang antennas. What ever antenna I construct will be hung from a tree limb abt 70+ feet high between two houses, so not much to attach to the other end. I'm researching VRD (vertically radiated dipole) types of antennas. THE DX MAGAZINE had a very interesting article on these antennas several months ago (1995).

To date, have worked: Maine, Texas, Alabama, Kansas, Oklahoma, Tenn, Wisconsin & New York. DX: Mexico, Canada (VE1 & VE2), England & Bulgaria. Missed opportunities: Alaska, Israel, Maritious & Japan. So, why complain?

Hope everyone else is enjoying success on 30. Great band!!!!!!!1

Caio,
Craig, AA3MD
The District of Calamity!

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: ji3m@scubed.com (James R. Duffey)
Subject: [8372] Windoms and Off center Fed Antennas (long with some conjecture)
Message-ID: <v02130500adb673bafd32@[192.31.66.224]>

I read your May 7 post on Windoms and off center fed antennas. I have been travelling a lot and have just now started reading the QRP digests, so I missed the original posts. I have a few comments to add to yours and some suggestions for NEC modeling.

It is important to differentiate between the off center fed dipole which is fed with "balanced" feeders and the classic Windom which has a single wire feeder. The cases are slightly different.

Both antennas will have significant feedline radiation. As you have found out, analysis of this is difficult as it depends on many factors. However there are simple intuitive methods of looking at this radiation. Moxon has addressed some of these techniques in his book "HF Antennas for All Locations", and in an "Antenna Compendium Volume 3" article. The Classic Windom can be thought of, at least at the lowest frequency, as a single wire terminated in a dipole. The dipole will radiate all the power it is fed. But if you look at the feeder it looks a lot like a long wire antenna terminated, more or less, in its characteristic impedance (the dipole). This is an efficient radiator. If the feedline and the antenna are of comparable lengths, the radiation from each will be roughly equivalent. Whether or not this is important depends on the orientation of the feeder and antenna.

I would suggest that you begin modelling the classic Windom as a horizontal antenna with a vertical feedline. Make each a half wavelength long, so that the antenna is a half wavelength above ground. Connect the voltage source between the end of the feeder and ground. NEC can have problems handling connections, so I suggest that you taper the feedline and antenna segments where they are connected to each other to .01 wavelengths or less. Lewallen addresses these issues in an early 1990s QST article called "NEC-The Double Edged Sword". I can get the exact reference for you if you can't find it.

The off center fed antenna with two feeders is somewhat more complicated. Although the instantaneous currents are equal at the feed point it is not a balanced feed point. The current in the feedline connected to the short end of the antenna will continue to rise in the feeder to a maximum roughly equal to that at the center of the antenna, and the current in the feeder connected to the long end will fall to the value at the end of the antenna. Thus, although the currents in each line of the feeder are equal in

magnitude they are out of phase, and hence not equal and will radiate. The vertical feeder will be roughly equal to an antenna with a current flowing in it which is at any time the difference in currents between the wires. You can get an exact answer by integrating the differences in currents. I have not done so, but I believe the magnitude of this equivalent current will be the same with time, but the phase, and hence the location of the current maximum relative to the ground will vary. This will make the radiation pattern somewhat complicated, but I believe for a half wavelength feeder the radiation from the feeder will be roughly equal to that of the antenna.

You can model this antenna with NEC in a similar manner to the Windom, bring the feeders down to earth and place voltage generators between each feeder leg and ground. Again taper the segment lengths as you approach junctions. I believe that Belrose has addressed NEC modeling of this antenna in an "Antenna Compendium" article, possibly Volume 2? If you need an exact reference I can look one up this evening when I get home.

By the way, using a balun to transition to Coax to make the currents equal in the feedline is a difficult task. Usually several baluns must be used to get rid of the currents on the outside of the coax, a 4:1 or 6:1 at the feedpoint, a 1:1 choke after that balun and a 1:1 choke at the transmitter end.

I hope that this helps. I have looked at the off center fed dipole recently for my own use, but the difficulty in controlling the feedline radiation makes me leery of this antenna for multiple band use. Still I may try it just to say I did.

Let me know how this ends up. - Duffey KK6MC/5

James R Duffey KK6MC/5 DM65
30 Casa Loma Road
Cedar Crest, NM 87008

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: rflight@VNET.IBM.COM
Subject: [8380] Re: Antenna Tuner Tests
Message-ID: <199605081910.PAA63140@nss2.CC.Lehigh.EDU>

Bob;

I tend to be long-winded on e-mail, so I will resist that tendency here, and simply seed your thinking.

Tuners (by design) are variable reactances in some series-shunt arrangement. They are best tested by keeping the real component of impedance constant. An excellent way to achieve this employs transmission line sections.

Terminate a coaxial cable "Tee" as close to your dummy load as possible, and terminate the second port with a length of cable (can be random, or can be several cables - to resolve ambiguities - and preferably a quarterwave in a region that you can evaluate <via open/short circuit testing> the velocity factor. The reactance can thus be easily (with good accuracy below 30 MHz) determined at various frequencies across the HF bands. You can "switch" between L (+) and C (-) reactances by switching between opening and shorting the end of the cable for each of the tests.

I think that's enough to give you the picture. You can thus verify the "reactive" tuning range limits of the tuner which can thus be converted to the respective inductive and capacitive values and thus scaled to other frequencies. You can collect enough data in a couple of hours with 3 or 4 cables to keep you busy number crunching for days :-). Aside from that, you can get a quick assessment of the reactance range it is capable of tuning at any given frequency in fairly short order.

I toyed with the idea of "characterizing" my tuner in this way with the notion that I could use the calibration data to quantify any given load. The idea here was to use my tuner as a substitute for an RF noise bridge. For the record... it works, but the math is a killer unless you have the routines loaded into a programable calculator or on a handy computer. In addition, you can tune many reactances with different combinations of L's and C's (remember the recent discussion on "the best 40-9'er filter???). "Will the most accurate measurement please stand out?????" This becomes a never ending compromise between parallax, interpolation, and parasitic distributions. Ugh!!!

I am reminded of the comment of a very wise old man (Confusius - or some near relative I think) who said something akin to "He who wears one watch always knows what time it is.... He who wears two watches is never quite sure!"

72 es enjoy

BTW... Sorry I didn't get a chance to chat wid u at the RARSfest.

Regards;

Gary E. O'Neil
Advisory Engineer/Scientist
IBM Corp. M/S A62A/205
3039 Cornwallis Road

Research Triangle Park, N.C. 27709-2195
Office: (919)-543-5750 FAX: (919)-543-4516
E-mail: rflight@vnet.ibm.com alias: n3go@amsat.org

//// / * / / / //// //// * //// //// / * //// //// ////

Only I am capable of offering such absurdities, and must assume all credit for my opinions and suggestions. They are mine and mine alone. My employer will graciously disavow any knowledge of my existence and laugh heartily at the mere suggestion of such a preposterous notion.

//// / * / / / //// //// * //// //// / * //// //// ////

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Brian.Buydens@usask.ca" <buydens@duke.usask.ca>
Subject: [8344] Re: AOL complaint dept
Message-ID: <Pine.OSF.3.93.960507222933.18633A-100000@duke.usask.ca>

You could try

postmaster@aol.com

I checked their web site at

<http://www.aol.com>

but I did not find any other mailing addresses (mind you I did not do an exhaustive search).

Brian.

On Wed, 8 May 1996 AlK0FRP@aol.com wrote:

> Does anyone know the email adr for AOL complaints. Just about had it
> accessing the Web on aol. Going to an internet service. Can't get thru on the
> phone.
>
> Al K0FRP
>
>

+-----+
| Brian Buydens, Computing Services, University of Saskatchewan |

```
| email: Brian.Buydens@usask.ca |
| VE5RDV |
+-----+
| Albert Einstein, when asked to describe radio, replied: "You see, wire |
| telegraph is a kind of a very, very long cat. You pull his tail in New |
| York and his head is meowing in Los Angeles. Do you understand this? |
| And radio operates exactly the same way: you send signals here, they |
| receive them there. The only difference is that there is no cat." |
+-----+
```

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Kevin Muenzler <muenzlerk@uthscsa.edu>
Subject: [8356] RE: AOL complaint dept
Message-ID: <01BB3CBA.1B64E000@muenzlerk.uthscsa.edu>

On Tuesday, May 07, 1996 11:07 PM, AlK0FRP@aol.com wrote:
>Does anyone know the email adr for AOL complaints. Just about had it
>accessing the Web on aol. Going to an internet service. Can't get thru on the
>phone.
>
>Al K0FRP
>
>

There's always postmaster@aol.com

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Larry East <LVE1@inel.gov>
Subject: [8360] RE: Cantenna Impedance
Message-ID: <2.2.16.19960508144819.324faf6e@134.20.32.17>

>From a recent post:
>
>I had always assumed that my Cantenna was a pretty reliable piece of
>test equipment but if it was ever really 50 Ohms it isn't now. Does
>anyone know if the resistor in the Cantenna has a positive temperature
>coefficient? That might explain why it reads low when dissipating
>microwatts.
>

I had a similar experience -- I got one of HeathKit's last CanTenna kits a few years ago and not wanting to buy 5 gallons of transformer oil, I used

automatic transmission fluid as the coolant. (Never run more than 100W into it, so figured it would work OK; been using the same type of oil in a homemade dummy load for years and no problem.) Well, after about 3-4 years, the resistor changed value from the original 51 Ohms to about 70 Ohms! The CanTenna was not used much, and just set on my workbench for use in testing rigs, etc., so I don't think it was from over-power dissipation or any such. I finally got a new resistor from Heath parts, but haven't installed it yet -- plan to use real transformer oil or medicinal mineral oil this time. The new resistor, by the way, measures 47 Ohms.

So what does this have to do with QRP? Beats me... :-)

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Moore, Randy (William R)" <WRMoore@ingr.com>
Subject: [8390] RE: DX reflector
Message-ID: <c=US%a=_%p=INTERGRAPH%l=HQ9960508155226EM007600@hq15.pcmail.ingr.com>

This may be what you are looking for...

>Submissions: dx@ve7tcp.ampr.org
>Subscribe/unsubscribe requests: dx-REQUEST@ve7tcp.ampr.org
>DX info on the Web: <http://ve7tcp.ampr.org/DX/>

73/72

Randy, KS4L

>-----

>From: vhatley@usa.pipeline.com[SMTP:vhatley@usa.pipeline.com]
>Sent: Wednesday, May 08, 1996 10:22 AM
>To: Low Power Amateur Radio Discussion
>Subject: DX reflector

>

>Does anyone here know the address of the Internet DX reflector? Please
>post it if you do. Tnx.

>

>73/72

>--

>KK5RO Butternut Vertical
>Vernon A. Hatley OHR Explorer II 40M
>QRP-L #325 Ten-Tec Omni V
>Kent Paddles

>

>

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Charlie Lofgren <clofgren@BENSON.MCKENNA.EDU>
Subject: [8391] Re: Help-Antenna tuner tests
Message-ID: <Pine.PMDF.3.91.960508151006.70241B-100000@BENSON.MCKENNA.EDU>

On Wed, 8 May 1996, BOB KELLOGG wrote:

> Hi Gang,
>
> How about some experienced help?
>
> I have an MFJ-259 SWR analyzer, and other common test equipment. I'd like
> to run some tests on my St. Louis Tuner and another tuner I'm building. Can
> someone suggest the best tests to perform and how to hook up the equipment
> to do it?
>
> CUL,
> Bob Kellogg, AE4IC
> Prolably, but not nececelery. - Benny Hill
>

Bob,

Yes. Look in QST for April 1995 (I think that's the date; I'm doing this from the office). You'll find an article by Frank Witt on using an easily built resistance box along with an SWR Analyzer to run fairly precise loss and balance tests. I highly recommend his technique.

72,

Charlie, w6jjz
clofgren@benson.mckenna.edu

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: JCoote@aol.com
Subject: [8393] Re: Help-Antenna tuner tests
Message-ID: <960508212746_290144882@emout18.mail.aol.com>

In a message dated 96-05-08 10:31:15 EDT, ae4ic@nr.infi.net (BOB KELLOGG) writes:

>)

>
>Hi Gang,
>
>How about some experienced help?
>
>I have an MFJ-259 SWR analyzer, and other common test equipment. I'd like
>to run some tests on my St. Louis Tuner and another tuner I'm building. Can
>someone suggest the best tests to perform and how to hook up the equipment
>to do it?
>
>CUL,
>Bob Kellogg, AE4IC
>Prolably, but not nececelery. - Benny Hill

A simple test to get some ideas of a tuner's matching ability would be to find a set of non-inductive (carbon) resistors from 20 to a few thousand ohms. "Tune" on each resistor, on each band (all nine bands, 160-10) as if it were an antenna. Will SWR go down smoothly to 1:1 on all loads and settings?

If this tuner has a balun, check the balun also. One way might be to use a center tapped dummy load (ex- for a 300 ohm balun test, use two 150-ohm resistors). Measure current in, or voltage across each resistor to get an overall reading and check balance.

You can measure RF power to these loads by E2 or by I2, a good scope or RF voltage probe or an RF-current meter.

If you make these measurements on the input and output of a tuner, they will tell you how much power is lost in the tuner (efficiency) and how well the balun is doing it's bit.

Keep in mind, these are pure resistances. A real wire antenna will often have reactance (capacitive or inductive) which will have to be cancelled by the tuner. It is a good idea for tuners to have enough inductance and capacitance inside to handle anything. Also note that electrically short (below $1/4\lambda$) wire antennas require a lot of tuner inductance, especially on the 2 and 4 MHz bands.

If you wanted go to the next step, you could add known inductive or capacitive reactances (coils or rf capacitors) to the resistive loads to see how far a tuner design will stretch.

A more down-to-earth test of a tuner might be to try the tuner over all nine amateur bands with various known lengths of end- or center-fed wire antennas. You should arrive at several lengths of random wires and center-fed antennas which will work with your tuner on all bands. Some tuners may not live up to this due to insufficient L/C inside; barely enough to match a 50-ohm dummy

load.

73, Jay
WB6AAM
jcoote@aol.com

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: PA3ASC@mailbox.hol.nl (Mike Perry)
Subject: [8381] Re: HW-8 Help
Message-ID: <199605081940.VAA15599@bonny.hol.nl>

>Date: Wed, 8 May 1996 13:04:51 -0400
> [snip] Stored away in my closet is a "stock"
> HW-8 ...[snip] >... would like to install RIT,
>can anyone recommend a simple but effective
circuit.[snip], Bill, K3AS

>
Bill and gang,
An excellent two-part article by Adrian
Weiss, K8EEG, appeared in CQ Magazine
in 1977 entitled: "Super Modified HW-8
Contest Machine"

Contents Part I: pp 48-52 (August 1977)
Increasing receiver sensitivity on 15 meters;
SWR/wattmeter; Audio filter; Pilot light
Contents Part II; pp 62-65 + 85-87 (October 1977)
RIT; Loudspeaker

I installed the RIT about 15 years ago and it still
works well. For this mod., K8EEG specified a
33 pF varactor diode type HEP2503 / MV2503.

Hope this helps.
73 de PA3ASC

--
Regards,
Mike Perry. [e-mail :- PA3ASC@mailbox.hol.nl]
=====

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: [8369] Re: Info about MFJ-971 QRP antenna tuner
Message-ID: <199605081551.JAA05641@zia.aoc.nrao.edu>

David,
I'm lousy with model numbers, but if it's the QRP antenna tuner by MFJ, I have one (know it's either the MFJ-971 or 941) ... been pretty happy with mine. Been able to load about everything I've tried, although I haven't tried loading rain gutters and things like that yet.

On mine, I added a switch to bypass the tuner for direct bypass, while still allowing the SWR/power meter to function. On the inductance switch, position L is connected to a mere a 1/2 turn from ground on the coil - kinda useless. I disconnected position L and ran it to four 200 ohm 2W resistors for a dummy load, so now have a built in dummy load setting. That's nice. And also put a switch on the rear panel to turn off the lamps that illuminates the SWR meter face. Those two lamps take about 100mA ... so I can switch off the lamps for battery operation. For HF mobile, that shouldn't be a concern.

I think you'll like it.

72, Paul NA5N

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Steve Silverwood <kb6ojs@earthlink.net>
Subject: [8343] Re: Introducing QRP, new book
Message-ID: <1.5.4.32.19960508041937.006ab6ec@earthlink.net>

Is there a way to get the book other than being at the 4DIM? I won't be able to attend but I would like very much to get hold of a copy. Thanks in advance.

At 20:47 4/30/96 +0100, Dick wrote:

>
>
>Hi gang,
>
>Ref new book *Introducing QRP*
>
>Well, at last got the book from the printers, it looks good.
>Pale blue cover and 9 photo's included.
>

>As promised it will be available at the 4DIM Thursday at the special price
>of \$8, if you are not booked at this event this price will be \$10. AND it will
>ONLY be available during the morning Coffee break and Lunch. Unless I
>can leave them with someone really trustworthy (I know what hams are
>like HI)
>
>We leave for the Arena to set up the booth after lunch!
>
>Sob weep, cry. Oh woe is us, what will we be missing ???
>
>
>Back to the book....
>
>Rob Mannion (he of large body and one arm - G3XFD)
>Also Editor of UK Practical Wireless Magazine wrote:
>
>"This book will become a QRP classic"
>
>What more could I ask for.
>
>See you there..
>
>
>PS, Richard, yours is booked
>
>TTFN de ...
>
> Dick Pascoe G0BPS / G0R00
>
> Please send replies ONLY to: Dick@kanga.demon.co.uk
>
> Kanga Products The UK's leading supplier of QRP kits.
> <http://ukinternet.com/ham/kanga>
>
>
>
-- //Steve//

Computer Associates CompuServe: 76703,3035
Fax: 714/557-1675 Internet: kb6ojs@earthlink.net
Phone: 714/513-7236 America Online: KB6OJS
Homepage: <http://ourworld.compuserve.com/homepages/KB6OJS>
Personal homepage: <http://www.earthlink.net/~kb6ojs>

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996

From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Subject: [8348] Re: More antenna questions
Message-ID: <Pine.SOL.3.91.960508071527.1117B@utkux4.utcc.utk.edu>

Brian,

First, you are correct that the highest current in a quarterwave vertical is at the base feedpoint and in a horizontal dipole it is at the center, no matter where along the half-wavelength piece of wire you feed it.

Which is better? That depends on a lot of factors. Verticals are used by many folks who cannot get 100' towers in the air because, when well-installed with a ground plane of many many wires, they can be efficient and radiate at lower angles--hence good for long skip paths. Due to part of the energy being reflected from the ground, the radiation from a dipole has an angle of maximum energy that varies with the antenna height. If you can get the antenna up 1 wavelength (35' on 10 meters, 70 on 20, etc.) the angle of max energy is about 14 degrees. Sounds a little problematical for 80 and 40 meters, where the angle is high, but the shorter skip for domestic contacts likes that higher angle.

Ground planes and efficient operation of verticals can be tricky, so for home brew purposes, one of the best starter antennas is a dipole cut for 80 meters (or for 40, if the yard is small), mounted as high and secure as possible, fed with 450-ohm parallel feedline to an antenna tuner. This particular antenna is sometimes called a center-fed Zepp and performs quite well on all bands, with the antenna tuner providing a match to the transceiver.

If you are limited in space, consider one of the half wave verticals, such as made by GAP or Cushcraft. Since they use professionally designed loading techniques, they require no experimentation to run, and since they are half-wave verticals, they do not require ground planes--just a few wires that some call a counterpoise. They ain't cheap, but as commercial antennas go, they are not expensive. Another alternative for a vertical is one of the quarter wavelength verticals up on the house roof, with radial wires (ground plane) following the slope of the roof. Butternut and a number of other companies make some good trap verticals suited for this application.

In the beginning, avoid loading schemes. Loads create areas of the antenna that do not radiate, and most loading devices have power robbing losses. (Even the verticals noted above have losses due to loading schemes.) So, you can get your 5' antenna to work, but it will not give anywhere near the performance of a full size antenna. In an emergency, of course, load up any old piece of metal and use it as an antenna--it will work to some degree. But in general, after analyzing what your space can hold, what your budget will tolerate, what you can and are

willing to maintain, and what the family will put up with, put up the highest, most full size antenna possible. Later, when you have gotten a good bit of experience using antennas under your belt, you can experiment with short antennas, loaded in various ways.

If you live in an apartment and must have a hidden, low, or short antenna, then, of course, life is one antenna experiment after another. If you have a yard and there are no restrictive covenants blocking you, then the best course may be to set up a good basic antenna. When it is working, raid the radio stores and the hardware stores for materials to experiment with antennas--there is always much more to learn--enough for several lifetimes.

Hope this advice, based on 40+ years of experience, has at least one useful idea in it for you.

-73-

LB, W4RNL

L. B. Cebik, W4RNL	/\	/\	*	/	/	/	(Off)	(423) 974-7215
1434 High Mesa Drive	/	\	\	\	----	/\	(Hm)	(423) 938-6335
Knoxville, Tennessee	/\	\	\	\	/	/	(FAX)	(423) 974-3509
37938-4443 USA	/	\	\	\				cebik@utk.edu
QRP/ARCI 2572	G-QRP	7203	CQC	125	NEQRP	347	NORCAL	1111
NWQRP 401	ARRL Life:	Educational	Advisor		QCWA	13211	10-10	41159

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996

From: "C. J. Hawley" <c-hawley@uiuc.edu>

Subject: [8373] Re: More antenna questions

Message-ID: <319093A2.4CB7@uiuc.edu>

L. B. Cebik wrote:

>

> Brian,

>

> First, you are correct that the highest current in a quarterwave vertical

> is at the base feedpoint and in a horizontal dipole it is at the center,

> no matter where along the half-wavelength piece of wire you feed it.

This brings up something that I have wondered about. The most often comment that one hears on the bands is "get the high current up in the air....thats the part that radiates". I disagree with that. I think the whole antenna radiates. You can't have an electric field without a magnetic field.....so what makes the difference which part is the highest. Then I wonder if the near field has more

losses due to the high current being nearest ground on the antenna.....I believe that the far field is the same regardless but what about the losses due to the orientation of the near fields in the presence of lossy ground? Is it that hams over the decades have gotten better results with the high current up high and just made up the radiation reason when it is really the losses that are the reason?

Also, there is a vertical made with open wire line fed as a vertical against ground (the two feed wires shorted together, fed against ground) TOP loaded with a dipole with it's far ends connected to wires folded back above the dipole, say a foot above the dipole wires. These wires running parallel to the dipole wires and above them are not connected above the feedpoint, they just end there. This results in the highest current being at the TOP of the vertical portion of the antenna. In particular this antenna with a 50 foot feedline and a 120 foot horizontal section works well as a vertical on 160M. With the folded ends shorted individually to the side of the feed point of the dipole that they are directly over, the antenna works as a cage dipole on 80M fed of course in the normal way with the open wire line (a tuner is required). Feel free to model this on EZNEC and confirm my results. This was from an article 40 years ago I am told.

Chuck, KE9UW

From owner-qrp-l@Lehigh.EDU Wed May 8 22:36:18 1996
From: bfollett@ditell.com
Subject: [8366] Re: More digital QRP experiences (long)
Message-ID: <199605081530.JAA29429@orion.ditell.com>

Gang:

Jay wrote a good summary of the "standard" digital modes, and also mentioned:

<<Seven years ago, I was experimenting with Dave Curry (WD4PLI) on the 160-190 Khz "LowFER" band (1 watt DC input and a 50-foot antenna limit). I was able to copy PLI's RTTY, amtor and packet signals on my receiving setup 15 miles away.>>

LOWDOWN recently reported a one-way signal reception of a BPSK xmitter running Part 15 rules on 1750M from Colorado! Basically, the CCW crowd has moved to BPSK, using software from Bill de Carle, VE2IQ, and seems to be getting excellent preliminary results. (remember a mention of BPSK when you studied for your Extra exams :-))).

73, Bob

Bob Follett WA7FCU, QRP-L # 129, NorCal, ARCI, 10-10

2861 Estates Dr. VOICE: 801.649.6457
Park City, UT 84060 Home Office E-mail: bfollett.ditell.com

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Dana H. Myers" <myers@bigboy.West.Sun.COM>
Subject: [8368] Re: More digital QRP experiences (long)
Message-ID: <Roam.3.0.831569970.3326.myers@bigboy>

> Gang:
>
> Jay wrote a good summary of the "standard" digital modes, and also mentioned:
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> getting excellent preliminary results. (remember a mention of BPSK when
> you studied for your Extra exams :-))).

That's interesting; when I first read about CCW, I thought it was pretty neat, but I was 15 and didn't know as much then. As I got older and learned more about digital communications, I started concluding that CCW was a pretty clever attempt at applying more modern communications technology (coherent demodulation) to a more dated modulation mode (on-off keying), which was really only necessary because of the limitation on other digital codings in Part 97 at the time. With the restrictions on digital modes in Part 97 essentially gone, I tend to think the question that CCW is the answer to is no longer being asked.

Dana

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: Mike Connor <mikec@primenet.com>
Subject: [8386] RE: SLT hint
Message-ID: <01BB3CE1.55540B20@mikec.primenet.com>

I used a teeny bit of heat sink compound to hold my nylon washers- worked well.:-)

Mike
NQ7K

From: Ted Kell[SMTP:tkell@130.253.192.68]
Sent: Wednesday, May 08, 1996 8:55 AM
Subject: SLT hint

When putting the two variable caps on the front panel, getting the nylon washers in place could be a problem. I borrowed my daughters glue roller that she uses for school projects, touched each washer to the roller to get a _small_ amount of glue on and then place the washer on the panel. Worked like a charm.

Putting the multi-tap inductor in its switch was a pain.

72

Ted KC5CUW

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: JessQRP@aol.com
Subject: [8347] Re: Tmps & Separate list
Message-ID: <960508070300_289598037@emout14.mail.aol.com>

Hi all,

As to the splitting of the list, the 30 meter stuff is one of the best things to come along in quite a while. How come nobody wanted a FOX-L last fall and winter? Same thang ain't it?

Best
Jess N0TFI

From owner-qrp-1@Lehigh.EDU Wed May 8 22:36:18 1996
From: "Frank G3YCC" <g3ycc@enterprise.net>
Subject: [8375] Re: Vertical antennas
Message-ID: <199605081833.SAA04268@mail.enterprise.net>

As a rough guide, wind a half wave length of wire (not 1/4 wave) on former and add a capacity hat, especially if any QRO activity is expected (!) as very high voltages are present at the top of the

coil.

Here is a useful way of tuning a vertical:

Listen on a receiver tuned to the band. Approach your hand to the coil and watch the S meter or listen to band noise. If it goes up, you need more turns or capacity hat and vice versa. Then with QRP applied to the antenna, do the same and observe the SWR. Add turns/remove or adjust cap hat depending on the SWR's reaction to your hand. It works, but remember not to touch the coils... OUCH! Have fun.

73

Frank G3YCC G QRP 042

QRP Web Page: <http://homepages.enterprise.net/g3ycc/>

Packet: G3YCC@GB7HUL.#15.GBR.EU